

**SYSTEM AND METHOD FOR PRODUCING AN INTEGRATED
CIRCUIT LAYOUT REPRESENTATION**

ABSTRACT OF THE DISCLOSURE

5 A method of producing a layout representation corresponding to an
integrated circuit (IC) device design can include generating an initial layout
representation in accordance with a predetermined set of design rules and
simulating how structures within the initial layout representation will pattern on a
wafer. Based on the simulation, portions of the layout representation, which
10 include structures demonstrating poor manufacturability and/or portions of the
layout representation in which extra manufacturability margin is present, can be
identified. Portions of the layout representation including structures
demonstrating poor manufacturability and/or in which extra manufacturability
margin is present can be modified to optimize the layout representation.

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